

Title: A Study of the Early Detection of Insect Infestations and
Density/Distribution of Host Plants.

Citrus Insects Research
USDA, ARS
509 West Fourth St., Weslaco, Texas 78596

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- (a) Film was intensively reviewed that was taken during May. Fifty prints were made of our test area with areas of interest marked on the prints. Ground crews were out for 5 days collecting the ground truth information. All information was compiled awaiting reception of Skylab data. Flights were made during this time to record seasonal changes and evidence of insect damage to citrus crops. Weather problems caused several scheduled aircraft flights to be cancelled. We strongly feel that it will be necessary for us to receive S190B data if we are to completely attain our stated goals in the Skylab program.
- (b) As the season progresses, it is now very important to intensify our aircraft flights. Insect population are beginning their seasonal increases and we will be flying every day that weather permits. After each flight the film is immediately processed, the processed film is interpreted and ground truth is gathered in the areas of interest.
- (c) We expect to intensify our flights over the valley to gather information on the seasonal development, behavior and dispersal habits of different insects. Ground crews will collect data each day to develop information of insects in various crops that can be correlated with the photographic data. Data received from Skylab will be used to define cropped areas on the U.S.-Mexican Border that could serve as avenues of entry for various pests.

E73-11075) A STUDY OF THE EARLY
DETECTION OF INSECT INFESTATIONS AND
DENSITY/DISTRIBUTION OF HOST PLANTS
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- (d) We have maintained a close aerial and ground surveillance of insects related to crops, determining population trends and areas of insect outbreaks, the development of these techniques to operational use will enable the grower to detect infestations early and apply control measures while only a limited portion of the crop is infested.
- (e) As weather permits we will continue to collect as much aircraft and ground truth information as possible concerning insect and host plant ecology of various crops in the test area and increase our photointerpretation knowledge of the specifics of these areas of interest so that we will be in the most favorable position to correlate this information when we receive the Skylab data.
- (f) Travel has been limited to only our test area for ground truth and insect sampling.